

Manufactured by the technology LonWorks®, the temperature transducers are designed primarily for distributed control systems. They work with conventional LonTalk® protocols, as a result of which they may be inserted as intelligent nodes into LON®-type networks without the need a universal connection device. The transducer head is made of plastic, all metallic parts are made of class DIN 1.4301 stainless steel. Operational conditions are met by a conventional, chemically non-aggressive environment, in which the transducers require neither attendance, nor maintenance.

Summary

Temperature transducers	Type
Wall mount	P10LON
Outdoor air	P11LON, P11LON-K
Duct probe	P12LON, P12LON-K
Well insertion probe	P13LON, P13LON-K
Strap - mount	P14LON, P14LON-K
Quick-acting	P16LON, P16LON-K
With cable thermosensor	P18LON, P18LON-K

Basic technical parameters

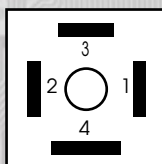
Supply voltage	18 to 35 VDC or 24 VAC
Output protocol	LonTalk®
Accuracy	±0,5°C
Resolution	0,01°C
Measuring thermosensor	Ni1000/6180ppm
Operating temperature range	-30 to 150°C
Transmission device	FTT-10A
Communication velocity	78 kbps
Ambient temperature	-30 to 60°C
Relative humidity	<80 %
Degree of protection	IP65 *
Lead-in cable recommended diameter	0,35 to 2 mm ²

* In case of P10 type, the protection is IP 30

Standard lengths L1 and L2

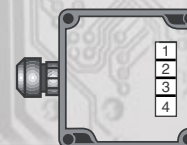
L1 (mm)	L2 (mm)
120	100
180	160
240	220
300	280
360	340
420	400

Wiring diagram of the connector for P1xLON-K



- 1 -/~
- 2 +/~
- 3 BUS A
- 4 BUS B

Connecting diagram P1xLON...



- 1 -/~
- 2 +/~
- 3 BUS A
- 4 BUS B

The P1xLON-K types are fitted with a 4-pin connector with PG7 inlet, see fig.
The P1xLON types are connected through the PG9 inlet.

Technical description, execution

P10LON

P11LON, P11LON-K

P12LON-L1, P12LON-K-L1

P13LON-L2, P13LON-K-L2

P14LON, P14LON-K

P16LON-L3, P16LON-K-L3

P18LON, P18LON-K

- transducers for measuring interior temperatures.
- these transducers are designed for measuring of outdoor air They are provided with a plastic console for fastening to the wall. The thermosensor is built-in to a stainless steel stem of 25 mm length. The connection terminal board is placed in a plastic head.
- console execution for assembly into VHAC channels. With the exception of the console, the equipment is the same as in the case of P11x. L1 denotes the stem length in mm, for example P12x-120 is the conventional transducer with a stem length of 120 mm.
- the transducers are designed for measuring in pipelines. As an accessory, a stainless steel thermowell with a thread G 1/2" at a length of L2 mm is a part of the transducer, which is tested for the pressure of 4.0 MPa.
- affixed execution of the transducers.
- transducers with a quick response. Stem length L3 = 100 or 160 mm.
- transducers with a thermosensor of 6 mm diameter, connected with a cable of standard length 2 m.

Ordering method

State the quantity of pieces and the transducer type in the order.

Example of an order: **5 pieces, transducer P13LON-100**

Transducer type _____
Thermowell length _____

Supply mains variables

nvoTemp - temperature measured (°C)
nvoRes - resistance measured (Ω)

Configuration parameters

nciTmpOffset - emperature offset for eventual correction by the user (°C)
nciSndDeltaT - minimum temperature change at which the supply mains variable is transmitted (°C)
nciSndDeltaR - minimum resistance change at which the supply mains variable is transmitted (Ω)
nciOffsetR - additive calibration constant (resistance measuring) (Ω)
nciScaleR - multiplication calibration constant (resistance measuring) (1)
nciSndHrtbt - maximum time between two transmissions of the supply mains variables (s)

Transducers mounting - P1xLON (without the connector)

Transducers for outdoor air , into the ducts and into the pipelines
Unscrew the screws and remove the head cover first, then connect the lead-in cable of the recommended cross section from 0.1 to 0.5 mm² and the outer diameter from 4 to 8 mm to the terminal board through the bushing. The mounting operation is terminated and the transducer is ready for operation, as soon as the cover is replaced onto the head and the screws are screwed in.

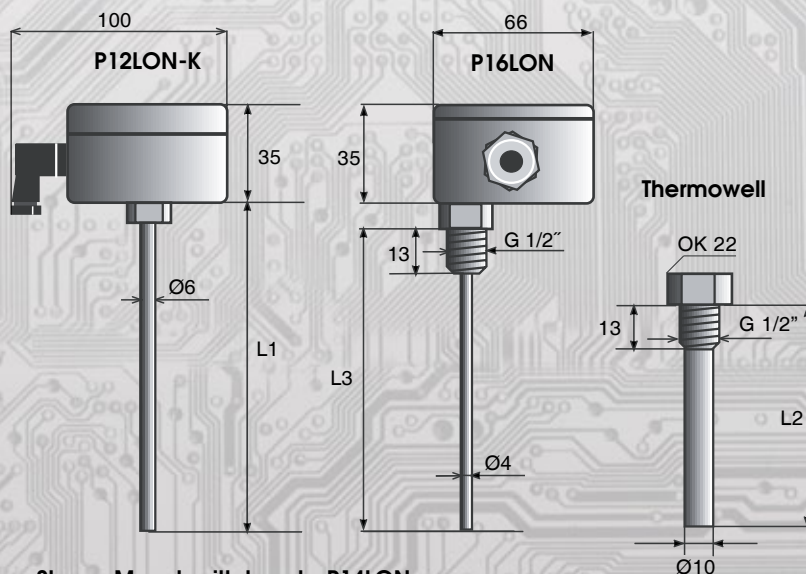
Wall Mount

Hinge the perforated cover and pass the lead-in cable through the hole in the base, connect the individual wires into the terminal board. Fasten the base onto the wall using two wood screws, which are to be screwed in through the holes in the opposite corners thereof. Shut the cover with a click onto the base, as a result of which the transducer is ready for operation.

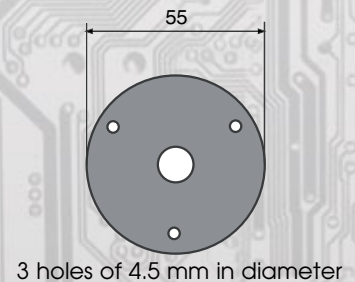
Strap - Mount

Using tape, affix the transducer onto the pipeline, and removing the cover, connect the lead-in cable of the recommended cross section from 0.1 to 0.5 mm² and the outer diameter from 4 to 8 mm to the terminal board through the bushing. Replace the cover back onto the head and screw in the screws, whereupon the mounting operation is terminated and the transducer is ready for operation.

Dimensions and accessories



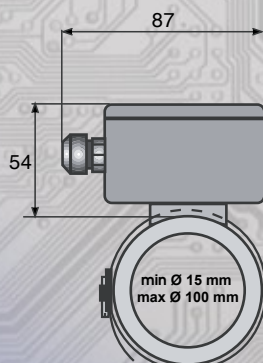
Central holder A - for P 12LON



Side holder A - for P11LON

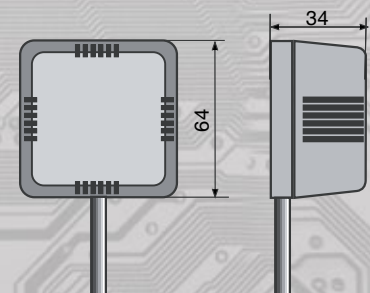


Strap - Mount with head - P14LON



Maximum temperature of the measured surface
 $t_p < 120^\circ\text{C}$

Wall Mount transducer - P10LON



Remark: 1) Subject of an order, also non-standart transducer lengths or other thermowell thread types may be delivered, such as M20x1.5.